FUTURE FISHERIES IMPROVEMENT PROGRAM

FWP and Future Fisheries Citizen Review Panel
Summer 2015 Funding Recommendations

1) **BIG OTTER CREEK FENCING AND STOCK TANK (023-2015)**. Big Otter Creek (Judith Basin County) is a tributary to Belt Creek that supports populations of brook trout, brown trout, and rainbow trout. The project involves the rehabilitation of a highway underpass for livestock use, the building of a bridge, installation of fencing, and addition of a stock tank. The landowner will be using a new route to move cattle and intends to protect the stream from livestock impacts. The goal of this project is to prevent stream degradation and represents a proactive approach to protect the stream from imminent negative impacts.
    a. The applicant is requesting $7,028.55 in Program funds for construction materials and equipment and plans to contribute $4,350 in in-kind services to the project. The total cost is $11,378.55.
    b. The initial FWP recommendation was to fund the project as requested ($7,028.55).

Initial FWP recommendation	**$7,028.55**
Citizen Review Panel recommendation	**same**

2) **BRAZIEL CREEK INSTREAM FLOW (024-2015).** Braziel Creek (Powell County) is a tributary to Nevada Creek and supports a nearly pure strain of westslope cutthroat trout. Flow monitoring in the area indicated dewatering due to irrigation demand, and this project aims to lease water and secure minimum flows for resident fish. In this project, a lease of 0.5 cfs in a split-season water-rights lease will be obtained from the landowner, associated with reduced irrigation withdrawal. The goal of this project is to protect and enhance native fish habitat by securing additional water for instream flow.
    a. The applicant is requesting $12,400 in Program funds for monitoring, travel, and water lease purchases. They plan to contribute $48,432 for a total project cost of $60,832.
    b. The initial FWP recommendation was to fund this project at $10,400, as Future Fisheries does not fund monitoring costs. RIT eligible.

Initial FWP recommendation	**$10,400**
Citizen Review Panel recommendation	**same**

3) **CHERRY CREEK FISH PASSAGE (025-2015).** Cherry Creek (Madison County) is a tributary to the Madison River and is now home to genetically pure westslope cutthroat trout. Nearly 62 miles of stream and 7 acres of lake habitat are now available to cutthroat trout due to the renovation work that has occurred in the drainage. This project, located within the westslope cutthroat trout restoration area, aims to connect the lowest portion of stream (8 miles) with the

upper portion of stream (52+ miles). An irrigation structure currently separates the two sections. Downstream, a waterfall separates the restoration area from non-native species in the Madison River. The applicant proposes to install two rock-weir structures immediately downstream of the existing irrigation dam, which would create two ascending step pools. The step pools would allow westslope cutthroat trout to successfully pass over the barrier and allow unobstructed movement within the cutthroat trout restoration area.

a. The applicant is requesting $7,080 in Program funds for construction materials and equipment mobilization. They plan to contribute $8,804 in matching funds for a total project cost of $15,884.
b. The initial FWP recommendation was to fund this project as requested ($7,080). RIT eligible.

Initial FWP recommendation	**$7,080**
Citizen Review Panel recommendation	**same**

4) **DEEP CREEK STREAMFLOW IMPROVEMENT (026-2015).** Deep Creek (Broadwater County) is a tributary to the Missouri River near Townsend that primarily supports brown trout and rainbow trout, and has been the focus of restoration projects for many years. Sediment inputs, high temperatures, and reduced streamflow are all factors that have affected the stream. This project proposes to eliminate an open ditch and install a screened pump to deliver water to irrigators. The applicant predicts this will improve stream flow along two miles of Deep Creek, reduce water temperature, and eliminate fish entrainment into the former ditch.
   a. The applicant is requesting $8,950 in Program funds for the irrigation pump and plans to contribute $129,000 in matching funds. The total project cost is $137,950.
   b. The initial FWP recommendation was to fund the project as requested ($8,950).

Initial FWP recommendation	**$8,950**
Citizen Review Panel recommendation	**same**

5) **DEVILS DIP SPRING CREEK CHANNEL RESTORATION (027-2015).** Devil's Dip Spring Creek (Powell County) is a tributary to Nevada Spring Creek near Helmville. The Nevada Creek drainage has been the focus of past restoration projects that have resulted in improved habitat, decreased water temperature, and westslope cutthroat trout population enhancement. However, Devil's Dip Spring Creek remains isolated from Nevada Spring Creek. In this project, the Devil's Dip Spring Creek stream channel will be restored, the adjacent pond and wetlands areas will be isolated, fish passage will be improved, and the stream will be reconnected to Nevada Spring Creek. The goals of this project are to restore the spring creek, reconnect it to Nevada Spring Creek, and provide uninhibited fish passage through the restored reach.

a. The applicant is requesting $8,500 in Program funds for oversight, labor, squash pipe, willow cuttings, and equipment. The applicant proposes to provide $21,810 in matching funds, and the total cost is $30,310.
b. The initial FWP recommendation was to fund this project as requested ($8,500). RIT eligible.

Initial FWP recommendation	**$8,500**
Citizen Review Panel recommendation	**same**

6) **FRENCH GULCH CHANNEL RESTORATION (028-2015).** French Gulch (Deerlodge County) is a tributary to French Creek, which flows into Deep Creek and the Big Hole River. Placer mining activities occurred in the French Gulch drainage from the mid 19th century to the early 1890's, resulting in stream habitat that has been degraded by stream channel straightening, the presence of large dredge spoils, increased stream gradient, reduced riparian area width, and isolation of the stream from its floodplain. The purpose of this project is to restore habitat impacted by placer mining. Restoration activities include reconstructing of the floodplain and stream channel, redirecting the streamflow, and plugging the old channel. The new channel would be vegetated with transplanted material or bioengineering techniques. The goal is to increase the number of westslope cutthroat trout and arctic grayling in French Gulch by addressing the habitat limitations and potentially opening habitat to fluvial fish from French Creek. This project is upstream of the French Creek fish barrier project (003-2014). In Winter 2015, the applicant was awarded $114,061, primarily for Restoration Area 1 and Habitat Improvement Areas (006-2015).
   a. The applicant is requesting $160,000 in Program funds for project design, oversight, construction management (Restoration Areas 2-5). The total project cost is $1,053,961.
   b. Due to the size of the request and limited funds, the initial FWP recommendation was to recommend funding this project in a phased approach. RIT eligible.

Initial FWP recommendation	Phased approach
Citizen Review Panel recommendation	**$90,000**

7) **LA MARCHE CREEK FISH PASSAGE IMPROVEMENT (029-2015).** La Marche Creek (Powell County) is a headwaters stream in the Upper Clark Fork River basin that supports approximately 1.5 miles of westslope cutthroat trout habitat. Low population size has been attributed to habitat degradation and impaired movement, as a perched culvert currently divides the reach in two. This project aims to replace the perched culvert with a timber, clear-span bridge and allow unobstructed westslope cutthroat trout movement throughout La Marche Creek.
   a. The applicant is requesting $8,400 in Program funds for labor, construction materials, and equipment. The applicant proposes to provide $2,700 in matching funds for a total project cost of $11,100.

b. The initial FWP recommendation was to recommend funding 50% of the project, or $5,550, due to low matching funds and no contribution from the landowner or logging company. RIT eligible.

Initial FWP recommendation	**$5,550**
Citizen Review Panel recommendation	**same**

8) **MARTINA CREEK CHANNEL RESTORATION (030-2015).** Martina Creek (Missoula County) is a tributary to Ninemile Creek and supports populations of westslope cutthroat trout and brook trout. It has been heavily altered by mining and some logging, and the creek contains dredge ponds, cascading channels, and braiding. The current impairments include impeded upstream fish migration, dredge ponds that contribute to increased water temperature, and placer mine tailings leading to sedimentation and impacted floodplains. This project aims to address these issues by moving large piles of dredge mining tailings, filling mining cutslopes and dredge ponds, and reconstructing the stream channel to connect Martina Creek to Ninemile Creek.
   a. The applicant is requesting $30,000 in Program funds for equipment and will provide $126,879.20 in matching funds, for a total cost of $156,879.20.
   b. The initial FWP recommendation was to fund this project as requested ($30,000). RIT eligible.

Initial FWP recommendation	**$30,000**
Citizen Review Panel recommendation	**same**

9) **MOOSE CREEK RIPARIAN FENCING (031-2015).** Moose Creek (Silver Bow County) is a tributary to the Big Hole River near Melrose that currently supports brook, rainbow, and brown trout but contains Yellowstone cutthroat trout upstream, above a barrier. The project involves the installation of 0.9 miles of wildlife-friendly, riparian fencing along Moose Creek, as part of a stewardship fence program. The applicant proposes a wildlife-friendly fence, and the cost includes bracing, gates, and water breaks. The goals of this project are to allow for natural bank stabilization, promote healthy channel geometry, reduce sediment inputs, and decrease water temperatures.
   a. The applicant is requesting $3,000 in Program funds for fence construction and plans to contribute $13,500 in matching funds to the project. The total cost is $16,500.
   b. The initial FWP recommendation was to table this application until additional questions could be answered at the Review Panel meeting.

Initial FWP recommendation	Table
Citizen Review Panel recommendation	**$3,000**

10) **POINDEXTER SLOUGH CHANNEL RESTORATION (033-2015).** Poindexter Slough (Beaverhead County) is 4.7-mile-long channel of the Beaverhead River, located near Dillon, fed by a combination of groundwater and water diverted from the river. The project area supports a very popular fishery for rainbow trout and brown trout. FWP surveys on this slough have documented a steady decline in trout numbers over the last 12 years. This decline has been attributed to impaired riparian conditions and the loss of instream habitat, primarily as a result of stream flow management that has restricted high spring flushing flows. The slough was traditionally fed by groundwater returning from flood irrigation. As landowners converted from flood to sprinkler irrigation, groundwater inputs decreased and the slough was supplemented with more water from the Beaverhead River to meet water rights. The diverted water deposited sediment into the slough, which filled pools and inundated riffle habitat. To effectively mobilize and transport these fine sediment deposits, a larger head gate at the top of the slough was installed. Appropriately sized channel dimensions were achieved and backwatered reaches were eliminated in most of the project area. However, the lower 2.1 miles of the slough still need to be narrowed, which will allow maintenance of riffle and pool habitat with sediment-flushing flows. The work will occur entirely on FWP fishing access site property. The Future Fisheries Program previously approved $88,643 toward completion of this project in the uppermost portions of the slough.

    a. The applicant is requesting $75,000 in Program funds for habitat enhancement in the lower reach and intends to provide $484,000 in matching funds for a total project cost of $559,000 (final phase).
    b. The FWP recommendation was to recommend funding this project at $75,000 (revised, due to new budget and additional information).

Initial FWP recommendation	**$75,000**
Citizen Review Panel recommendation	**same**

11) **RATTLESNAKE CREEK FISH SCREEN (034-2015).** Rattlesnake Creek (Missoula County) is a tributary to the Clark Fork River and contains bull trout, westslope cutthroat trout, rainbow trout, brook trout, brown trout, and mountain whitefish. Within Rattlesnake Creek, several irrigation diversions are active, and most of them are screened. This project addresses the Hughes-Fredline diversion, which currently is unscreened and entrains many salmonids. This project would involve the installation of a rotary-wheel fish screen on the side channel upstream of the ditch to prevent fish entrainment. Additionally, the existing culvert would be replaced and a formal headgate would be installed, allowing water levels to be controlled. The bank would be graded and revegetated.

    a. The applicant is requesting $11,865 in Program funds for construction materials and equipment. The applicant intends to provide $15,500 in matching funds, for a total project cost of $27,365.

b. The initial FWP recommendation was to recommend funding the project as requested ($11,865). RIT eligible.

Initial FWP recommendation	**$11,865**
Citizen Review Panel recommendation	**same**

12) **REESE CREEK INSTREAM FLOW ENHANCEMENT (035-2015).** Reese Creek (Park County) is a tributary to the Yellowstone River near the northern boundary of Yellowstone National Park that supports both a resident population of Yellowstone cutthroat trout at its headwaters and a migratory spawning population that originates in the mainstem Yellowstone River. This project intends to install a pipeline between the existing diversion and intake pond, which would decrease the necessary diverted flow volume and salvage seepage losses, providing additional instream flow to Reese Creek. The goal of this project is to ensure minimum instream flows are available in Reese Creek year-round, which will increase survival of Yellowstone cutthroat trout fry and increase recruitment to the Yellowstone River.

a. The applicant is requesting $55,000 in Program funds for construction materials and plans to contribute $71,000 in matching funds to the project. The total cost is $126,000.
b. The initial FWP recommendation was to recommend funding this project as requested ($55,000). RIT eligible.

Initial FWP recommendation	**$55,000**
Citizen Review Panel recommendation	**same**

13) **SMITH SLOUGH SPAWNING ENHANCEMENT (036-2015).** Smith Slough (Madison County) is located approximately 3.5 miles southwest of Twin Bridges and supports rainbow and brown trout. This project involves a 2-mile-long slough channel of the Big Hole River and a 1-mile segment of the connected Smith Ditch. Smith Slough currently comes off the Big Hole River, where it is controlled by a headgate. Downstream of the headgate, the ditch/slough system is split in half, and water is divided between the slough and Smith Ditch. The ditch and slough run parallel for more than a mile before converging and discharging into the Big Hole River. The purpose of this project is to improve wild brown trout and rainbow trout spawning (as well as habitat for adult fish), water quality, and water quantity in the slough and Big Hole River, where there are few spawning tributaries. This project would relocate the headgate and ditch, redirect irrigation return flows away from the slough, narrow and deepen the channel, and realign portions of the ditch and slough. The applicant requests that Program funds be used for the Smith Ditch spawning gravel portion, which involves constructing 1,600 feet of spawning areas in the ditch channel by adding spawning gravel. Subsequently, a water management plan would be developed, and fertilized eggs would be stocked to jump-start the fishery.

a. The applicant is requesting $50,000 in Program funds for the installation of spawning gravel and a headgate in the Smith Ditch, and is contributing $325,995 in matching funds for a total project cost of $375,995.
b. The initial FWP recommendation was to recommend funding only the spawning gravel portion of the project ($40,000).

Initial FWP recommendation	**$40,000**
Citizen Review Panel recommendation	**same**

14) **SPOKANE CREEK BRIDGE (037-2015).** Spokane Creek (Lewis & Clark County) is a tributary to Hauser Lake in the Missouri River drainage near East Helena. It supports primarily rainbow and brown trout. Prior to spring 2014, the existing bridge was washed out during a high flow event. When a habitat improvement project was completed in spring 2014, a new location for the bridge could not be selected. The applicant is proposing to build a bridge at a more suitable location at an elevation that will adequately pass flooding flows and debris. The goal is to build a new bridge that will reduce the risk of blowout and will not jeopardize stream habitat treatments or infrastructure located downstream.
a. The applicant is requesting $6,600 in Program funds for labor, materials, and equipment. They plan to contribute $1,625 in matching funds to the project. The total cost is $8,225.
b. The initial FWP recommendation was to recommend funding this project at the level of the match ($1,625).

Initial FWP recommendation	$1,625
Citizen Review Panel recommendation	**Not approved ($0)**

15) **STONEWALL CREEK FISH SCREEN (038-2015).** Stonewall Creek (Lewis & Clark County) is a tributary to Keep Cool Creek located near Lincoln and contains westslope cutthroat trout. Near stream mile five, an unscreened irrigation diversion is causing channel impairments and entrainment of cutthroat trout. This project would upgrade the existing diversion with a fish screen and instream cross vane. These upgrades are expected to permit fish passage, bedload movement, and keep fish from entering the ditch. A flat-plate fish screen with a paddlewheel is proposed.
a. The applicant is requesting $13,300 in Program funds for oversight, construction materials, and equipment. They will contribute $25,600 in matching funds, for a total project cost of $38,900.
The initial FWP recommendation was to fund this project at the amount requested ($13,300). RIT eligible.

Initial FWP recommendation	**$13,300**
Citizen Review Panel recommendation	**same**

16) **TRAIL CREEK FISH SCREENING AND PASSAGE (039-2015).** Trail Creek (Missoula County) is a tributary to Morell Creek near Seeley Lake. Trail Creek supports westslope cutthroat trout, bull trout, and brook trout populations. This proposed project would screen the last of three unscreened diversions within the Trail/Morrell Creek watershed. This diversion entrains trout and acts as an obstruction to upstream fish passage. The current structure is a pin-and-plank check dam and a denil ladder that provides partial fish passage. The goals of this project are to replace the existing diversion structure with a rock cross vane and armored riffle that will allow fish passage, stream channel function, and bedload movement. A McKay-style, flat-plate fish screen with a paddlewheel will be installed with flow measuring devices in each ditch and downstream of the diversion.

a. The applicant is requesting $21,175 in Program funds for oversight, labor, construction materials, and equipment. They will contribute $38,800 in matching funds for a total project cost of $59,975.
b. The initial FWP recommendation was to fund this project at the amount requested ($21,175). RIT eligible.

Initial FWP recommendation	**$21,175**
Citizen Review Panel recommendation	**same**

16) **UPPER LOLO CREEK SEDIMENT REDUCTION (040-2015).** The Upper Lolo Creek watershed (Missoula County) is significantly impacted by sediment generated by forest roads and failing culverts. This area is considered important habitat for bull trout, and the project is part of a long-term restoration effort to remove culverts that are fish barriers and reclaim excess forest roads that add sediment to the Upper Lolo Creek system. The project intends to re-contour 12-14 miles of forest roads and remove at least eight culverts, reducing sediment and improving fish passage in the drainage. This is a supplemental application and was partially funded in the last funding cycle. In the winter 2015 funding cycle, the applicant requested $87,000 in Program funds. The project was funded at $43,000 (49.4% of request).

a. The project applicant is requesting $65,000 in equipment costs from FFIP and will be requesting $24,650 in additional funds from DEQ's 319 program to cover a $93,650 funding gap.
b. The initial FWP recommendation was to fund this project at the level that remained from the Winter 2015 application, or $44,000. RIT eligible.

Initial FWP recommendation	**$44,000**
Citizen Review Panel recommendation	**same**

17) **VAN HOUTEN LAKE FISH BARRIER AND SPAWNING CHANNEL (041-2015).** Van Houten Lake (Beaverhead County) is located on the Beaverhead Deerlodge National Forest near

the town of Jackson in the Big Hole valley. The lake is 12.1 acres in size with a maximum depth of 9 feet. Two spring-fed inlet streams are located on the west and north sides of the lake. The outlet flows to the east and feeds into the Big Hole River approximately 0.5 miles downstream of the lake. Van Houten Lake currently supports a brook trout fishery, but white and longnose suckers are abundant and have contributed to slow growth of fish. The fishery is currently poor, and a recent introduction of burbot has not controlled the sucker population. The goals of this project are to expand the range of Arctic grayling into Van Houten Lake, to establish a lake brood source for westslope cutthroat trout, and to improve the fishery. To complete these goals, the applicant proposes to install a fish barrier in the outlet stream to preclude fish passage and keep non-natives out of the lake. The applicant also proposes to create an outlet spawning channel that will be located above the barrier near the current lake outlet.

c. The applicant is requesting $10,000 in Program funds, and intends to provide $20,000 in matching funds for a total project cost of $30,000.
d. The initial FWP recommendation was to fund this project as requested ($10,000). RIT eligible.

Initial FWP recommendation	**$10,000**
Citizen Review Panel recommendation	**same**

18) **WARM SPRINGS CREEK FISH PASSAGE IMPROVEMENT (042-2015).** Warm Springs Creek (Deer Lodge County) is a tributary to the Clark Fork River, located within the Beaverhead Deerlodge National Forest, and contains bull trout and westslope cutthroat trout. An existing culvert is undersized, acts as a velocity barrier for fish, promotes bedload deposition upstream, and increases scour downstream. This project proposes to replace an undersized culvert with a bottomless structural arch culvert. The goals are to replace the structure, thereby allowing unimpeded fish movement throughout much of the Warm Springs Creek headwaters, and increase access to 10 miles of stream habitat.

e. The applicant is requesting $43,250 in Program funds for construction materials and proposes to provide $106,250 in matching funds for a total project cost of $149,500.
f. There was no initial FWP recommendation; the applicant was asked to provide technical information regarding culvert size. RIT eligible.

Initial FWP recommendation	None (need info)
Citizen Review Panel recommendation	**Table**